



Defining *User*: A Review of the Internet

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Introduction

In the year 1992 *Boardwatch Magazine* published a rather standard issue of their monthly fare, describing themselves on their front page banner as a “Guide to Online Information Services and Electronic Bulletin Boards.”¹ Looking through the magazine, there is one small section titled “Internet News.” There, readers are provided a few author-less columns dedicated to Internet statistics, noting that there were around 6000 users of this new medium.² In June of 1995 Boardwatch published another magazine, this time describing themselves as a “Guide to Electronic Bulletin Boards and The Internet.”³ In this issue, the Internet dominated. Every front page story was related to the Internet, describing how to build websites and how to navigate the World Wide Web. In three years the magazine went from dedicating less than ten pages to the Internet to writing entire issues centered around the Information Superhighway. A Nielsen Media Research study published by the *Washington Post* in 1995 revealed that those 6000 users had grown to over 37 million people in the United States and Canada, with over 30 percent of users accessing the Internet everyday.⁴ As Nielsen VP Paul Lindstrom said at the time, “people have been broadsided by the Internet.”⁵ Today, there is no argument to be had about the success of the Internet, its popularity, or its global significance. A 2019 study published by Hootsuite and WeAreSocial details that, in 2018, an average of one million people per day came online for the first time.⁶ The numbers, when compared to those only twenty-seven years ago, are staggering.



Figure 2: Numbers⁷

How are we currently approaching this medium? How are we defining our relationship to the Internet and, by extension, to the Modern world? The Internet is ubiquitous in our current Zoom-ed lives, and around us there is the continuous integration of technologies as “Smart.” From refrigerators to thermostats, most aspects of life are steadily joining the grand “Internet of Things.”⁸ Grappling with the entirety of the Internet is to grapple with one’s entire world – thus, some (potentially arbitrary) boundaries are necessary for

this paper. What follows is an analysis of the specific vocabulary and language used to describe the Internet and our relationship to it. By analyzing vocabulary from 1995 and earlier, one will get a sense of how this new medium was being understood. 1995, being the “Year the Future Began,” is a suitable upper bound for Early Internet.⁹ By comparing that vocabulary to our current vocabulary one will get a sense of what has changed and what has remained consistent in our descriptions. Due to the incredibly diverse material available about the Internet currently, the modern analysis will focus on the past four years, using the Social Media app TikTok as a focal point for analysis.

As we further integrate with this technology, from our toasters to classrooms, it becomes clear that the distinction between our selves and our machines is difficult to demarcate. Tracing language from pre-1995 reveals our conceptions of the Internet as a separate, other-ed tool, even as it was clear that this medium coalesced with the human experience to an unprecedented degree. This language of separation has continued to dominate binary conceptions today, even as our current language increasingly reflects the embodied nature of the self-on-the-Internet. Quite literally, our current vocabularies are not equipped to describe our relationship to the Internet adequately. This paper will question the binary of User and Computer, tracing how dichotomous language makes it immensely difficult to grapple with our evolving relationship with the Internet.

Early Internet: 1992-1995

In 1994, Don Oldenburg wrote an article for the *Washington Post* titled, “The ‘I’ Word; All Caught Up in the Interactive Revolution.” In that article, Oldenburg notes that the “buzzword of the decade” is *interactive*.¹⁰ The Consumer Electronics show was renamed as CES Interactive ’95, and VP Al Gore released the “Interactive Citizens Handbook” as a guide to government bureaucracy. Oldenburg quotes the dictionary, defining interactive as “To act on one another; act reciprocally.”¹¹ Andrew Lippman, then director of the MIT Media Lab, provides a more robust definition:

You can’t interact with a rock; you need a cooperative, conversational, mutually active machine that can push back at you as hard as you push on it...As we integrate this interactivity into a worldwide network we move interaction into everyday communicative life.¹²

Erik Strommen, director of research for Interactive Technology at Children’s Television Workshop, describes how television was *not* interactive since it did not matter to Big Bird if one actually sang and moved one’s hands – to be interactive, there had to be “contingent feedback,” indicating that different responses corresponded to different inputs.¹³

This conception of Interactivity is incredibly useful in understanding the reception of the Internet at that time. This medium, unlike any other thus far, was one that recip-

located and responded, providing feedback. But how was this interactivity understood? Predominantly, this interactivity was viewed as a Binary Interactivity. That is, there was one contained entity (the User) interacting with another contained entity (the Internet). Such a binary placed all the power and agency in the hands of the user, rendering the Internet as nothing more than an object to be used as a tool, albeit a tool capable of responding.

Binary Interactivity

User

What follows is first a consideration of User dominance. Of course, one need only look at the word “user” to understand the dominant role ceded to the human. The “user” quite literally is the one performing the action, the subject acting upon the object, the one that uses another. Whether it be Internet User, User, or Web User this noun almost unilaterally describes the person engaging with the Internet.¹⁴ In the December 1995 Issue of *MacWorld*, the first page of the magazine declares “In here you decide the future;” a few pages later, an advertisement for a stylus concludes with “Your brain. Your style. Your way. Our pen.”¹⁵ The agency here is wholly the User’s – like a stylus, the Internet is merely a tool, a blank canvas upon which one can decide their own future with their own style. Clearly the individual engaging with the Internet has all the control and power in their interactive relationship to the web. In his article “The (Second Phase of the) Revolution Has Begun,” published in *Wired* magazine in 1994, Gary Wolfe writes that “By following the links - click, and the linked document appears - you can travel through the online world along paths of whim and intuition.”¹⁶ In such a description, it is the User’s whim and intuition that determines where the User travels – all agency is ceded to the User.

Software Agent

What of the computer and its responses? As part of the definition of interactivity, there was indeed the intuition that the Internet would provide incredible potential for responsiveness. In “Second Phase,” Wolfe writes of “electronic documents smart enough to answer a reader’s questions” as a “long-frustrated dream[] of computer liberation” that may finally come to fruition through Mosaic.¹⁷ Here, though there is a sense that the computer is responsive, the relationship is still one of call and response, of a question and answer dictated and controlled by the user.

In his article published in a 1994 edition of *Science* titled “Software agents prepare to sift the riches of cyberspace,” M. Mitchell Waldrop reports on the growing fascination with software agents, “autonomous software robots that would be free to leave their home machine and fan out through cyberspace like productive versions of the sorcerer’s

apprentice.”¹⁸ These robots are, as their name clearly described, agents. They are contained units, distinct from the user and utilized to perform various tasks at the request of the user. The allusion to the sorcerer’s apprentice is apt, for it highlights the nature of these agents as entirely dependent upon the will of the User. As Waldrop phrases it, “the agent approach transforms the computer user from a worker into a manager: You delegate tasks to a set of agents who do things for you.”¹⁹ As such, these ‘agents’ would be their own distinct presence of the Internet, where Users would control and manage them however the User wished.

In his article “Have my (software) agent call your agent,” S.J. Vaughan-Nichols personifies these agents.²⁰ He writes that “while you busy yourself with other things, the agent does all the work – virtually window-shopping, so to speak – and returns with its findings for your final decision,” ending his brief article with a figurative description of “agents that will commute on tomorrow’s data superhighway.”²¹ These agents are, as their name suggests, entities unto themselves. Though sharing the same highway, these agents are discrete programs that operate wholly within the user’s discretion, leaving any ‘final decisions’ up to the user. It is clear then that the binary of user and computer is not compromised by these entities with their own agency, but reaffirmed.

Superhighway; Surf

How was the Internet described? One of the most popular phrases used was “The Information Superhighway.”²² This phrase highlights the nature of a contained experience on the Internet. One uses a highway as a form of transportation within a vehicle; though technically sharing the road, others cars (or Internet Users) are independent and isolable. In a 1995 *Washington Post* article titled “Be at Home on the Internet,” David Wallechinsky describes his sense of “riding” this “electronic superhighway.” He writes that one can “visit various ‘rooms’...as you ‘walk’ from room to room.”²³ He describes how the agency is entirely the user’s, telling readers they may “Read what interest[s] you, then either move on to another site or subject.”²⁴ It is this “freedom of movement [that] led to the now-common expression ‘surfing the net.’”²⁵ This language makes the relationship between the user and computer clear: like someone walking between rooms, one has total freedom of movement, able to ‘surf’ and be anywhere one wishes entirely by one’s own design or decisions. In his *New York Times* article “PERSONAL COMPUTERS; Cruising the Web With a Browser,” Peter H. Lewis goes so far as to refer to Lynx, a text-based browser, as a “no-frills, high-speed surfboard” with which to “cruise” the Web.²⁶ In a short column published in *The Bottom Line*, Murray S. Martin notes how Canada’s “growing information highway needs legislated ‘rules of traffic.’”²⁷ This language of ‘surfing’ or ‘riding’ the ‘highway’ aligns with the strict binary between user and computer; one is describing themselves a free agent navigating a space entirely according to one’s own will. Any rules regarding ‘traffic’ are externally imposed – the highway itself has no role to play.

Connection

Such a binary has an affect on how “connection” over the Internet is regarded. Though there is an understanding that there is a layer of mediation in any communication technology, the conception of the Internet as this highway renders connections between people on the Internet as intimate and immediate. When discussing her online friendships in a 1995 article for *Boardwatch Magazine* titled “People Online: Getting out from behind the keyboard,” Phyllis Phlegar notes that in using the web “basically we all connect with a human being or beings on the other end.”²⁸ Despite noting how different many of her ‘cyber friends’ seemed in person than online, Phlegar never gives any indication that the structure of her mediated communication was at fault for this disconnect. Rather, her friend Peg notes that “she wasn’t worried about having me stay with her sight unseen, since I seemed to be so open and honest online and she felt as if she’d known me for a long time.”²⁹ Like two people smiling at one another from their respective car windows, one does not get the sense that the road itself is changing their relationship, only that it provides a space in which to communicate. For Phlegar and Peg, this space is a place to get to know someone intimately. For others this space is so transparent that it provides a clearer view of the person on the ‘other end’ than other forms of communication. 19 year old Martina Molandes wrote a letter to the *Washington Post* in 1995 detailing how she met and fell in love with someone she met over the Internet. She agreed to meet RYU (his moniker) in person because she felt she had “known him for nearly 2 months, and I pride myself on being a good judge of character.”³⁰ She wrote that:

I fell in love. And what made it so much better was the fact that I felt so sure about what I felt. I know this sounds strange to people who don’t interact with their computer much and can’t comprehend what it’s like to meet someone over the computer, much less fall in love...Still, when you meet people generally, the first thing you go on is somebody’s looks or clothes. But meeting someone on the computer and phone, you meet their personality first, rather than their looks.³¹

For Molandes the Internet not only provides a means of connection, but it provides a means of connection that is more honest than in person. Online, one meets ‘personality’ first. In his *Post* article, Wallechinsky describes the Net as a, “great way to meet hundreds of people who have similar concerns and interests,” echoing this sense of personality.³² While Molandes cautions others from following her footsteps, noting how “very lucky” she was, she nonetheless regards the Internet as a space where one can come to know another deeply and without artifice.³³ In “Second Phase,” Wolfe uses language strikingly similar to Molandes to describe the “intense illusion, not of information, but of personality” he felt when navigating Mosaic.³⁴ Wolfe writes that “I had been treating the ether as a kind of data repository, and I suddenly found myself in the confines of a scientist’s study, complete with family pictures.”³⁵ Describing dead links as locked doors and profile pages

as personal studies, Wolfe continues the spatial metaphor of the Internet as a space to be navigated, an open area into which one may meander where they please, freely. He writes “All the documents in the Web are within reach. What path will you take to get to them? What path will you mark for others to take?”³⁶ The agency and ‘path’ is understood as entirely within the control of the User. The connection between people is thus one mediated, obviously, but mediated through a medium as benign as the asphalt between two cars on highway.

This type of connection, this personal interaction between two people, is described with distinctly different vocabulary than the connection between two computers. When describing the rate of data transfer between one computer and another, the technical term “bandwidth” is used. In his 1994 article for the *LA Times* titled “World Wide Web Browsing for the Haves and Have-Nots,” Daniel Akst projects that “sooner or later there’ll be enough bandwidth to bring something like Mosaic to everybody’s screen.”³⁷ In his 1994 article for *Wired* magazine titled “Slip into the Net with Shareware,” John Ost describes his own cravings for “more bandwidth in any form” after he “caught a glimpse of the fiberoptic superhighway that lies just over the horizon.”³⁸ What these two articles demonstrate is that bandwidth is a technical, computational term, reserved for referring to the specific data rate between technologies, not people. When people connect over the Internet, their connection is measured in ‘personality’ and trust as their computer’s connection is measured in bandwidth.

Freedom of Persona

With this freedom of movement there is an assumed freedom of appearance. Even though there are those like Molandes and Phlegar who trusted the personas they encountered as honest representations, so too is there the recognition that one can be anonymous. In his 1995 Article for *Boardwatch Magazine*, Lance Rose writes how:

Anonymity on the Net also enables people to explore parts of themselves in ways they could not do otherwise...[O]nline you can act like a free spirit...Anonymity is the tool that can let people explore themselves this way, without worrying about the clash between different parts of their lives if someone they know in the physical world finds out about some other side they reveal online.³⁹

What is important in the above quotation is that there is never a sense of compromised identity. Online one may “reveal” or “explore” or “act” any aspect of themselves they wish, but these actions and representations are all derivative of and chosen by the user. Though Phlegar notes that ‘Peg’ and ‘Hunca’ were different in person than their online personas, there was still the sense that the online persona was a curated selection, a facet of oneself chosen to exist online. This ability to choose how one represents themselves derives from the conception of the user occupying a personalized and individual space on

the Net. In one's own home, one may don whatever mask one wishes – the wallpaper does not constitute a compromise of agency. In the same way, the Internet is conceived of as a personal space in which one may create whatever appearance one wishes, entirely due to one's own whims. In her article "It's Time to Offload Your Overload for a New Internet Year," published in the *Washington Post* in 1995, Williams writes that:

Once you've moved into your new home, tell your friends your new email address. Remember that any mail sent to your canceled address will bounce back to the sender, so make the announcement before you turn off the lights and shut the door.⁴⁰

This description is not about Williams moving apartments, but changing her "Internet Account." As she describes changing software, deleting programs, and changing to new providers she consistently uses 'home' imagery, such as the example above, to illustrate her point. Wallchinsky's article from the *Post* is titled, "Be at Home on the Internet."⁴¹ This level of personalization reinforces the idea of a user carving out their own special lane on the superhighway, distinct from others, wearing whatever mask they so choose, and in total control.

Freedom of Pornography

One noteworthy effect of this perceived freedom, independence, and personalization is the consistent fear and debate over censorship. What is surprising, or perhaps not surprising at all, is that most discussions of censorship in this time were dominated by concerns of obscenity. In his article for the *Washington Post*, Jared Sandberg describes how the German company CompuServe took down or restricted pornographic content.⁴² Though offering arguments to both sides, Sandberg leans towards a negative view of censorship, ending the article with a list of benign sites included in the sweeping ban. In the United States, participants rallied in an "Internet Day of Protest," delivering to Congress their displeasure over a bill which would "create criminal penalties for anyone making 'indecent' materials available to children on-line," arguing that "the measure is too broad and could harm freedom of speech."⁴³ If the Internet is perceived as one's individual homespace, fears of censorship are fears of total control. In one of the most polemic articles of 1995, Philip Elmer-Dewitt wrote in his *Time* magazine article "On a Screen Near You: CYBERPORN" that "You can download only those things that turn you on, rather than buy an entire magazine or video. You can explore different aspects of your sexuality without exposing yourself to communicable diseases or public ridicule."⁴⁴ Like the mask in one's private home, Elmer-Dewitt is noting that on the Internet one may act to the fullest extent of individuality conceivable, as if their superhighway lane was their personal bedroom. Listing the possibilities, Elmer-Dewitt writes that many forums appears as "a grab bag of 'deviant' material that includes images of bondage, sadomasochism, urination,

defecation, and sex acts with a barnyard full of animals.”⁴⁵ Operators of pornographic material describe themselves as merely adhering to “consumer demand.”⁴⁶ Elmer-Dewitt refers to the Internet as the “the Most democratic of media,” quoting Marc Rotenberg of the Electronic Privacy Information Center as arguing “The First Amendment shouldn’t end where the Internet begins.”⁴⁷ It should be noted that the tone of the *Time* article is highly bombastic, and was subsequently attacked by various critics and news outlets as “inaccurate and misleading.”⁴⁸ Yet, regardless of the veracity of the claims made, the article nonetheless underscores the binary between user and computer. All the strange tastes and ‘obscene’ desires were explorations of one’s own desires – the demand was the consumer’s. The Internet, like a home or special highway lane, is a personal affair where one is free to surf where one wishes, connect with whomever one wishes, create whatever persona one wishes, and (if legal) explore one’s personal desires. In every regard, the User is a distinct entity that uses the Internet for the individualistic purposes of said User.

Non-Binary Interactivity

Yet – there were moments where this language seemed weak, where cracks appeared in the dichotomous language of User and Internet. While not nearly as ubiquitous, moments where the language did not fit neatly into a binary division will be noted here. In his article “It’s the Context, Stupid,” published in *Wired* magazine in 1994, Saffo writes that “algorithms rather than content duel for market dominance.”⁴⁹ Saffo doesn’t write of a future where everyone is connected to another across a benign cyberspace, but rather of “a world of hyperabundant content, [where] point of view will become the scarcest of resources.”⁵⁰ In his article Saffo describes how context, not content, will come to dominate the Web. He even goes so far as to almost predict the rise of the Instagram influencer, noting that “I will even bet that an industry will grow up around individuals licensing their points of view for use in context engines in exchange for usage royalties,” essentially describing an industry of people who sell their points of view.⁵¹ This conception of the Internet takes full notice of the various algorithms and “sense-making tools we will rely on to navigate” the superhighway of the Net.⁵² Here, the agency of the User seems to be compromised. Though there is still the underlying notion of this cyberspace as an expanse to be navigated, Saffo acknowledges that the navigation may be dominated not by User intention, but by “those who control the filtering.”⁵³ As such, for Saffo the User is not in total control. Though the distinction between User and Internet remains, there is a sense that the relationship is not nearly as one-sided as has been shown thus far.

In his article “Personal Computers,” Lewis notes that “On a recent foray into the Web, a writer went looking for a technical document and, just by pointing and clicking on automated links to other documents, wound up with a treatise on how to cause grapes to explode in flames in a microwave oven.”⁵⁴ In his “Second Phase” article, Wolfe writes of following one’s own whim and intuition, yet he also describes himself as being carried

away by clicking hyperlinks:

I typed the address incorrectly - or had copied it down wrong - and I soon found myself wandering aimlessly along the interwoven strands of the Web, listlessly clicking on links...It was late. I'd been in Paul Mende's life for an hour. I turned the computer off. It was not until this morning that I remembered I had never made it back to CERN.⁵⁵

Wolfe is describing how he went from looking for a specific document to clicking through a random man's profile page. Here, Wolfe is beginning to prod at the reality of engagement with the Internet: the user is not in total control. Wolfe indeed chose to click, moved his muscles, decided to follow the blue underlines. But did he choose to get where he wished? In the Lewis article, a writer went from academic articles to grapes. Wolfe went from CERN to a picture of Benjamin, Mr. Mende's son. Were these Users truly autonomous, using the Internet with their agency intact? What is striking about the Wolfe account is the sense of surprise, of shock at suddenly being swept by an undercurrent one was not even aware of. Wolfe also describes Mosaic as a "pleasurable" browser that it is difficult to stop using.⁵⁶ These moments where people using the Internet give an indication that they are 'being used' as much as they are using, that their decisions and agency can only get them so far, reveal the inability of dichotomous user-centric language to truly represent one's relationship with the Internet.

Within the Wolfe article, an MIT researcher was quoted as saying, "You've got all these people, and people are cultural - the individual has cultural software that he is running. As that culture is expressed electronically, you can integrate it into the Web."⁵⁷ Here, the MIT researcher describes people as running cultural software, language that explicitly uses computational vocabulary to describe the human being. He uses this vocabulary to describe integrating ourselves with the web. In that moment, the binary between User and Internet is ambiguous - if both me and my Internet are running software, integrated, where does one end and the other begin?

Late Stage Internet

This blending of the computer and the human was rarely encountered in the early 90s. Dominantly, the language used to describe the Web was a language of separation, distinction, and user-centric agency. Yet - this is not the case today. Today, much of our language reflects the ambiguous division between Internet and Self. Despite still carrying vestiges of the same conceptions of separation, autonomy, and distinction as in the days of Mosaic, the proliferation of Internet technologies means that many cannot honestly refer to the Web as a wholly distinct medium. Philosopher Andy Clark was featured in a 2018 *New Yorker* article that focused upon his extended-mind theory. Clark believes

that conceiving of cognition as within our craniums is a limited conception, and believes “the mind extends into the world and is regularly entangled with a whole range of devices.”⁵⁸ Clark describes human consciousness as “a user interface,” and “dreams of a future in which his refrigerator will order milk, his shirt will monitor his mood and heart rate.”⁵⁹ Regardless of the blithe attitude Clark takes towards his own digitization, his philosophies of an internet-incorporated human being do well to illustrate the integrated nature of our current technologies. If one views the mind as extended beyond the skin of one’s skull, one finds that referring to the Internet as a separate entity does not reflect the reality of our interactive lives.

As was stated in the Introductory consideration of the “Internet of Things,” the sheer saturation of Internet technologies makes an analysis of our vocabulary surrounding the Internet a daunting task. In the Oldenburg article, *interactive* was deemed the buzzword of the time. In 2019, the American Name Society dubbed ‘TikTok’ the Trade Name of the Year in a unanimous first ballot vote.⁶⁰ Thus, TikTok will function as a focal point for analysis. This does not mean that only articles related to TikTok will be analyzed, but rather articles and research pertaining to social media generally will be used to then supplement more specific analysis of TikTok itself.

Binary Interactivity

User

Though less common than in the 90s, some of our language enforces the same dichotomy of User and Computer. Obviously, the phrase “user” is still the dominant phrase to discuss the human operating the keyboard, and many still refer to the Internet, or specific Social Media platforms like Snapchat, as a “tool” to be used.⁶¹ One example of current user-centric vocabulary is the phrase “bad actors,” used to describe people who bully or harass or otherwise do negative things online. In a 2018 article titled “YouTube Tries to Think of the Children,” Bergen and Shaw detail steps YouTube is taking to protect children who use their platform, describing YouTube as turning their “playground” into a “walled garden.”⁶² YouTube was quoted as saying they wished to “curb bad actors” who wish to use their platform maliciously.⁶³ There is no indication in the phrase “bad actors” that those actors are being influenced by anything other than their own will. YouTube, in their attempts to clean up their platform, describe these bad apples which spoil the garden; there is no indication that their agency is compromised, that the garden itself has a role to play.

Non-Binary Interactivity

Algorithm

Predominantly, however, language currently used to describe the Internet is not as one-sided. In their TED Talk “The nightmare videos of children’s YouTube – and what’s wrong with the internet today,” James Bridle calls out YouTube itself, not bad actors, as bearing a heavy responsibility for the way their platform is promoting horrific videos for children. Specifically, Bridle refers to the YouTube ‘algorithms’ as the problem, describing how the strange titles one sees on YouTube is a direct result of our “algorithmically driven culture:”

Your real audience for this stuff is software. It’s the algorithms. It’s the software that YouTube uses to select which videos are like other videos, to make them popular, to make them recommended. And that’s why you end up with this kind of completely meaningless mash, both of title and of content.⁶⁴

Bridle here is clearly not placing the brunt of the blame at the foot of the bad actor, but is arguing that the algorithm itself determines what content is produced. Bridle even goes so far as to say that, “There are real people trapped within these systems [...] even if you’re human, you have to end up behaving like a machine just to survive.”⁶⁵ For Bridle, the algorithms not only define how the content is received, but even how it influences the real people creating these videos. This word, *algorithm*, is far different than the idea of software agents described in the 90s. Those agents were self-contained, directed, intelligible, and discrete. Algorithm is a word that describes unintelligible processes, behind-the-scenes codes and shadowy movements in an abstract fashion, and the word ‘algorithm’ dominates discussions of technology today.

In her 2017 TED Talk “We’re building a dystopia just to make people click on ads,” Zeynep Tufekci argues passionately about the commercialization and profiteering latent in our electronically mediated world. She describes the algorithms as:

[...] giant matrices, thousands of rows and columns, maybe millions of rows and columns, and not the programmers and not anybody who looks at it, even if you have all the data, understands anymore how exactly it’s operating any more than you’d know what I was thinking right now if you were shown a cross section of my brain.⁶⁶

In this description, Tufekci makes it clear that the process guiding one as they navigate the web are abstract and inconceivable to even the programmers. Notably, she describes the operation of these algorithms as like that of ‘a cross section’ of her brain. This metaphor clearly renders the Internet as a medium much more intimate than a ‘highway,’ indicating that one’s relationship is not a cut-and-dry affair that can be easily understood. She describes how “persuasion architectures” are built that “[pick] what it thinks that you

might be interested in,” a description that deeply complicates the nature of user agency on the web.⁶⁷ These subterranean processes persuade and guide the user in manners which are unintelligible to the user themselves.

This language of persuasion was notable in a 2019 study published in *Sport Management Review* titled “Snapchat and child sexual abuse in sport: Protecting child athletes in the social media age.” This article focused on Snapchat as a means for coaches to sexually abuse their athletes, concluding with an understanding of how such a study may inform best practice in the future for school systems. In the article, researchers note that “a coach may begin using Snapchat without the intention to engage in sexually abusive behavior, but ultimately that ends up occurring...Snapchat seems to facilitate coach perpetrators overcoming internal inhibitions and external barriers.”⁶⁸ The researchers also describe how Snapchat can “prompt” sexual abuse, and “persuades [coaches] to adopt a different moral code.”⁶⁹ While this study never uses the word ‘algorithm,’ and refers to Snapchat as a ‘tool,’ the language of the study aligns strikingly well with that of the previous TED Talks. Snapchat is given a stunning amount of power in this study, enough to persuade and facilitate abuse by coaches who may not even have the intention to engage in abusive behavior. The researchers support this by referencing another 2019 study titled “Virtual technologies as tools of maltreatment: safeguarding in digital spaces,” which the authors describe as evidence that people “adopt differing moral codes online.”⁷⁰ From that article one reads that, “our real lives have become intimately entangled with new media and virtual environments, so much so that digital technologies are no longer an additional feature but an integral feature in everyday communication and activity,” language which underscores an inability to disentangle the self from the cyberspace.⁷¹ This entanglement is not passive, but explicitly has the power to shift ethics and persuade users to act in ways they may not necessarily intend.

In his 2018 TED Talk “How we need to remake the Internet,” Jaron Lanier goes so far as to describe social media networks as “behavior modification empires,” due to their ability to shape the ‘users’ of their platforms.⁷² In his 2011 book “The Shallows: What the Internet is doing to our Brains,” Nicholas Carr writes extensively about the mental effects of engaging with the Internet, describing shortened attention spans and inability to deeply read documents anymore.⁷³ For many, there is the implicit understanding that we, as users, cannot remain independent and unaffected by this medium which we engage with. There is the understanding that some process, some algorithm or structure, guides our thinking to the degree where entirely different patterns of thought and ethics arise from our engagement with the Internet.

Bandwidth

The way our connection to the Internet is described helps to illustrate the extent to which the aforementioned algorithm can influence the user. In the 90s, the word bandwidth was

a purely computational term. Now, the word has come to mean “the emotional or mental capacity necessary to do or consider something.”⁷⁴ This biologization of a computational term is not a quirk in our etymology, but an honest indication of how our relationship between computers is perhaps measured in the same way our connection between people are. In her article for *The Verge*, Elizabeth Lopatto writes about Elon Musk who seeks to “achieve a symbiosis with artificial intelligence,” where humans merge their consciousness with that of AI.⁷⁵ Lopatto writes that “For Musk, the central problem of interacting with AI is actually ‘bandwidth.’ You can take in information much more quickly than you push it out via your voice or your thumbs.”⁷⁶ For Musk, the rate of communication between our minds and our technologies is limited by bandwidth – this understanding informs why he is currently working to create a brain-machine interface with his company Neuralink. Bandwidth, a term once reserved for computer-to-computer communication, is now an equally applicable term to describe brain-to-computer communication. While not yet in human trials, Musk was famously quoted as saying “A monkey has been able to control a computer with its brain, just FYI.”⁷⁷ The reality of Neuralink’s project demonstrates that terms (like bandwidth) which blend the computational and the human are an apt representation of our current lives. With goals to cure brain diseases and merge with AI, Musk’s company is clearly demonstrating that a conception of the Internet as an other-ed tool is not only inadequate but dangerously dishonest to the current human experience.

In a recent longitudinal study of over 6300 children between 2012-2017, published in 2020, researchers found that “a 1 percent increase in [broadband] speed reduces how children feel about their appearance by approximately 0.6 per cent.”⁷⁸ Broadband, like bandwidth, is an indication of the rate of communication between computers. Researchers in the study powerfully note that “even in the most stringent specifications estimated there is evidence of a negative causal relationship between faster BB speed and domains of childrens wellbeing.”⁷⁹ Simply having more broadband speed directly correlates with lower self-perception, in a stunning example of how concrete and realistic the usage of “bandwidth” to describe mental capacity is. Our relationship to the Internet is so intimate that computational words like “bandwidth” and “broadband” are used to analyze one’s wellbeing; the 2020 study and previous understanding of algorithm clearly shows that this connection is having tangible effects.

Feedback

As was shown, the 90s perception of interactivity was that there was a response by the interface, received by the user. In the current climate, there is clearly the understanding that there are some forces mediating our deeply connected relationship to the Net. How are we considering this responsive nature of the Net? One keyword to understand our conceptions of responsiveness is “feedback.” In a 2018 study titled “Selfie-Objectification: Self-Objectification and Positive Feedback (Likes) are Associated with Frequency of Post-

ing Sexually Objectifying Self-Images on Social Media,” researchers endeavor to show that posting sexually objectifying images to Social media results in positive feedback. What is interesting about this article is the usage of “feedback” defined as the “likes” received on a particular photo.⁸⁰ The feedback received was feedback directly from the interface itself, feedback defined numerically. Another study published in 2018 outlined similar results, noting that “Posting sexualized photos is associated with getting more ‘like,’” even as the study also noted that posting sexualized photos actually seemed to indicate “less confidence in the ability to communicate during a sexual encounter.”⁸¹ This feedback is again defined by “likes” as the study shows that the posts were disconnected from reality and not representative of the posters themselves; the above analysis of algorithm puts into question how much this feedback is then a result of individual user choices rather than algorithmic design.

In a 2016 study that also researched sexualized images on social media, researchers found there to be “a penalty in the form of negative peer attitudes that a sexualized self-presentation on social media” elicits, noting that “adolescent girls and young women are at constant risk for slut shaming” as a result of posting sexualized images.⁸² In a 2018 study, researchers found that “Peers who post sexual images, primarily women, were considered unrespectable and subject to sexual shaming.”⁸³ The disparity in responses is stunning: on one hand, sexualized and objectified images results in positive ‘feedback’ defined by likes, yet also results in peer sexual shaming and criticism. In a 2015 study on the “Impact of Social Media on the Sexual and Social Wellness of Adolescents,” researchers note that social networking sites may “serve as a ‘media super-peer’ by endorsing and establishing social and behavioral norms.”⁸⁴ This language is powerful, noting the sites themselves ‘endorse and establish’ norms; the authors of the study conclude by writing that social media, “jeopardizes the sexual and social wellness of adolescents.”⁸⁵ In analyzing this ‘feedback’ within the context of algorithm and non-binary interactivity, one questions whether the positive feedback is distinguishable from the platform itself. As one receives ‘positive feedback’ in the form of likes and ‘negative feedback’ in the form of peer shaming, one questions if that positive feedback is a result of user agency or rather a result of some algorithm that endorses and establishes these practices.

Persona

In 2004, John Suler published an article titled “The Online Disinhibition Effect,” where he outlined the difference in behavior from the real-world to the online-world. In that article he describes how “Rather than thinking of disinhibition as the revealing of an underlying ‘true self,’” one should consider “a collection of slightly different constellations of affect, memory, and thought that surface in and interact with different types of online environments.”⁸⁶ Though a dated article, Suler nonetheless is highlighting the phenomena observable in the aforementioned studies of social media: one’s online persona is not

tied directly to an independent user choosing to represent a ‘true self.’ Women who post sexualized images receive negative peer shaming but positive ‘likes,’ even as the posts may not indicate reality; can one truly say that the motivation to represent oneself as a sexualized object is distinct from the platform which promotes and establishes those norms? An intimate connection and algorithmically structured interaction with the Internet complicates any understanding of an online persona that exists as an honest facet or exploration of some inner reality, willed entirely by the user.

One’s own projected self is a compromised and complicated affair on the Internet – what of the reception of others? In his article, “Redefined for the digital age: a dictionary of refreshed words,” Laurence Scott goes through various words that have evolved their definitions as our lives become more digitized. Scott notes one word that, in the Early Internet, was the source of incredible conflict: porn. He writes:

[T]he porn suffix has certainly boomed in these increasingly digital conditions...As a result, those who fear for the ubiquity of pornography in the digital age must also contend with its metaphoric hijacking of our supposedly more wholesome pleasures.⁸⁷

In our current lexicon, porn has become a word to describe anything which is pleasurable, enjoyable, or of the best quality. ArtPorn, BridgePorn, and FoodPorn are just some examples of such language seen on the social media app Reddit.⁸⁸ The proliferation of pornography, described in the Elmer-Dewitt article but lambasted by contemporary critics, is now undeniable. For every minute of 2019 there was over 11,000 hours of pornography watched on the popular website Pornhub; every day there was 115 million visits, just on this one site.⁸⁹ The word porn has seeped into our common vocabulary, even as studies have demonstrated the objectifying and often violently exploitative nature of Internet pornography.⁹⁰ Researchers Vandenbosch and Oosten published an article in 2017 that argued for porn literacy education to be taught in schools, concluding that “For the relationship between [sexually explicit Internet material] use and notions of women as sex objects, our results showed that porn literacy education may have this capacity of preventing unwanted media effects.”⁹¹ Such a statement not only highlights the connection between pornography consumption and the view of women as sex objects but also begs the question: unwanted by whom? The parent company of Pornhub, MindGeek, describes itself on its website as, “Industry-leading exclusive technologies driving unparalleled performance,” boasting that “With over 100 million daily visitors to some of the world’s largest trafficked websites, we’re uncovering trends and user habits overnight that takes others months to gather.”⁹² Back in 1995, Elmer-Dewitt noted that certain keywords would increase traffic, that when describing, “the same images using words like choke or choking, consumer demand doubled.”⁹³ Now, the leading pornography parent company boasts its ability to gather and analyze user data; the success of their

results speaks for itself, and one is forced to consider if the demand or ‘habits’ truly originate from the independent agency of the user.

Rule34 is a ‘rule of the Internet’ popularized as a meme; in short, the rule states that *if it exists, there is porn of it*. Our language reflects our entanglement with the Internet, an entanglement which potentially creates new sets of ethical rules through an algorithmic power to persuade and influence. From sexual-objectification on social media being rewarded by likes to women as sex objects successfully driving porn traffic, one must seriously grapple with the effects this entanglement is having upon how people represent themselves and are perceived across this powerful medium.

TikTok

As one of the most popular and rising social medias in the world today, TikTok provides a concrete way to understand the complicated relationships described thus far. Our current conceptions of the Internet reflect our internalization of software as our language becomes increasingly digitized to match our digital natures; with this incorporation of the Internet into our selves, there is a tension between algorithmically guided action and ‘bad actors’ acting of their own agency, resulting in an online environment where ‘real-world’ ethics fail to be applicable and personas encountered on the Internet often have no connection to a real person on the other end. TikTok embodies this tension perfectly. Parent company ByteDance is a powerful company that, besides making a social media app, specializes in data analysis and Artificial Intelligence. In her article, “How TikTok Holds Our Attention,” Jia Tolentino describes how “the app had sandblasted my cognitive matter with twenty TikToks that had the legibility and logic of a narcoleptic dream.”⁹⁴ Despite this seemingly horrific experience, Tolentino writes how the app “had been designed to perform algorithmic pyrotechnics that were capable of making a half hour pass before I remembered to look away,” and was ultimately successful in keeping her attention in the endless scroll of videos.⁹⁵ Tolentino uses this article to describe how “A.I.-powered algorithms are becoming central to the ways that we process our everyday existence,” an experience she believes is essential to TikTok’s success. She writes:

Perhaps the time had come to let the algorithm treat the rest of us like babies, too. Maybe it knows more about what we like than we do. Maybe it knows that if it can capture our attention for long enough it won’t have to ask us what we like anymore. It will have already decided.⁹⁶

In her conclusion, Tolentino makes it clear that her agency is compromised. The ‘pyrotechnics’ of the app are insidiously successful in not just analyzing what the user wants but determining what the user wants. The algorithm here is the deciding factor, while the user is simply the finger that scrolls down the screen mindlessly.

In an article published by *The Intercept*, authors Dias, Biddle, and Ribeiro discuss leaked documents that provided some insight into the moderation and algorithm behind TikTok. The documents reveals that TikTok algorithm and moderators were instructed to “suppress posts created by users deemed too ugly, poor, or disabled for the platform,” while also banning “ideologically undesirable content.”⁹⁷ If a user was deemed impoverished or not attractive enough, the leaks indicate that such content would be suppressed from the “For You” page where all TikTok content is centered. While TikTok claimed many of these rules were no longer in practice or in place to prevent cyberbullying, the app’s purported subtle enforcement of a crafted image fits well with previous understandings of social media and the objectification of the person. In an article for the *Inquisitr*, Helen Storms writes about another immensely popular TikToker in “Addison Rae Easterling Licks Lips Seductively In New Instagram Selfie.”⁹⁸ Articles that appear as other “Must Reads” in the sidebar are as follows:

Addison Rae Stuns In White Bikini While Lounging Poolside
Addison Rae Easterling Stuns In Black Bikini, Surprises Fans
Addison Rae Easterling Stuns in Strapless Black Bikini
Addison Rae Easterling Shows off her figure in new beach photos⁹⁹

The sexualization of social media starlets is undeniable. After reading about the objectification of women on social media for ‘positive’ feedback, noting the popularity of objectifying and data-driven pornography, and understanding TikTok’s purported policy of punishing those who are unattractive, the above litany of article titles seems perfectly indicative of a culture immersed in reductive and objectifying algorithm.

Yet TikTok is often viewed as the place where anybody can become famous.¹⁰⁰ In her interview with Jimmy Fallon, 15yr Charli D’Amelio (the most popular TikToker in the world), told Fallon that in order to be successful one must “be authentic...you can’t fake a smile.”¹⁰¹ After all that has been demonstrated about the mediation and usurpation of agency experienced in an increasingly algorithmically dominated world, a call for authenticity feels shockingly out of place.

Conclusion

What, then, does this say about the current conception of the Internet? Despite numerous studies and authors highlighting the loss of control and entangled identity experienced on the Internet, TikTok maintains its algorithms are for cyber-bullies; YouTube maintains that bad-actors are the problem on their platform. Young adolescents, like Charli D’Amelio, are approaching these technologies as if authenticity were possible, as if the Internet was an other-ed tool, as if the user-centric binary was accurate. If one were to

ask someone on the street: “Are you independent from your Internet connection?” would many say Yes? Would many acknowledge their integration or would many fall back to the user-centric language of the 90s? A 2018 study published by Pew Research Center has found that 45 percent of studied teens report being online ‘almost constantly.’¹⁰² A 2007 study found that self-objectification, like that found in social media to garner likes, “fragments consciousness. Chronic attention to physical appearance leaves fewer cognitive resources available for other mental and physical activities.”¹⁰³ The 2020 study of broadband connection shows that Internet speed is directly correlated to perception of one’s appearance. Not only are people (and adolescents especially) spending more and more time online, they are doing so in platforms like TikTok or other social medias that encourage a self-objectification for likes, at the detriment of one’s mental capabilities and self-perceptions.

The Internet is not simply a tool; the Internet is not a highway to be surfed carefree and independent; the Internet is not a realm where one can simply project a image of themselves honestly without that image being mediated and altered by the very technology itself. The user is a part of larger process, not a contained entity with agency intact. This author now asks the reader to consider moments where one clicked, liked, or watched something on the Internet they did not choose to. Moments where perhaps, if confronted by their search history, one would feel a sense of shame or embarrassment at an ‘out-of-character’ action. Moments where one simply stares at their screen, mindless, clicking between tabs or opening and closing apps without a flicker of cognition to ground one’s actions.

These moments have been aspects of the Internet since the first graphical web browser, when Wolfe described the strange processing of “following” links and Lewis described the exploding grapes. It should be noted: in his article, Wolfe interviews Marc Andreessen, the man behind Mosaic. Wolfe notes that Andreessen gave the “impression of a man doing battle against the businesslike backdrop,” describing Andreessen as a man “who is being forced by the traditional logic of the software industry to operate with a caution that verges on secrecy, a caution that is distinctly at odds with the open environment of the Web.”¹⁰⁴ In his 2018 TED talk, NYU Professor of Marketing Scott Galloway asked ‘What is a prayer?’ and answered “Sending a query into the universe, and hopefully there’s some sort of divine intervention – we don’t need to understand what’s going on – from an all-knowing, all-seeing superbeing that gives us authority that this is the right answer.”¹⁰⁵ He concludes by saying that one should, “know that the greatest collection of IQ capital and creativity, that their sole mission is: to sell another fucking Nissan.”¹⁰⁶ In considering the compromised nature of one’s agency, in noting the integration of the Internet as manipulating and affecting consciousness, one asks oneself what the ‘traditional’ logic of the software industry is, and if Mosaic’s battle with business environments ended when Microsoft released Internet Explorer ’95. One asks oneself what the telos of ByteDance’s

and MindGeek's algorithms are, and one wonders how we convinced ourselves the 5th page of Google is useless garbage. This is not to reduce all of the Internet to consumerism or capitalist forces – questions of algorithmic desires yield answers as multiplicitous as human nature itself. It is precisely that scale of influence that underscores the importance of regarding the Internet as a fundamentally distinct realm from reality but an equally ontological one. When one conceives of the Internet as distinct from one's self, one projects it as a highway, a room, a place to be explored where the daily philosophies and quagmires of human life are equally applicable. But when one considers the Internet as an exponentially ingrained process, a grammar or foundation to one's patterns of actions unprecedented in, yet deeply connected to human history, one discovers the need for new words to answer new questions.

Andy Clark is indeed a modern philosopher, one of the few to truly engage with an embodied Internet cognition. Yet, there are long and thorough philosophical traditions that reject dualism, reject a view of consciousness as embedded into synapses, and envision a human being as a nexus of relations inherently intertwined with the rest of the world.¹⁰⁷ There is no denying the Internet will only become more embodied until it is implanted. There is also no denying there are genuine cognitive and social effects of this digitization of the human being. To continue to purport false ideals of individualism, authenticity, self-agency, and isolated consciousness will not only limit our current understanding of ourselves, but condemn us to continue blindly towards a future holding the false idol of control. In order to regain a handle on the human experience and to possibly understand and prepare for the questions and words ahead, one must *begin* with the understanding that the user is inseparable from the Internet.

In·ter·net Us·er /'in-tər-.net 'yü-zər/

noun :: distinct from yet derivative of HUMAN BEING

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